

**IN THE CLAIMS:**

This listing of claims replaces any and all prior claim lists.

**Listing of Claims:**

Claim 1 (Currently Amended). A carbon nanotube composition that contains a water soluble conducting polymer having an acidic group (a), a solvent (b) and carbon nanotubes (c).

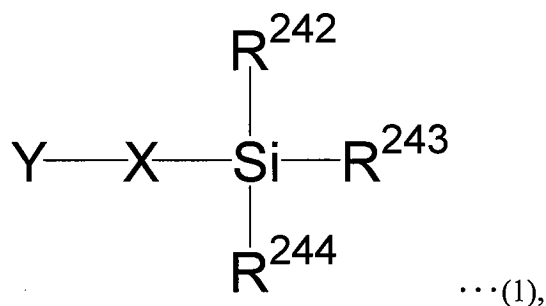
Claim 2 (Withdrawn). A carbon nanotube composition that contains a heterocyclic compound trimer (i), a solvent (b) and carbon nanotubes (c).

Claim 3 (Previously Amended). A carbon nanotube composition according to claim 1, wherein the carbon nanotube composition additionally contains a high molecular weight compound (d).

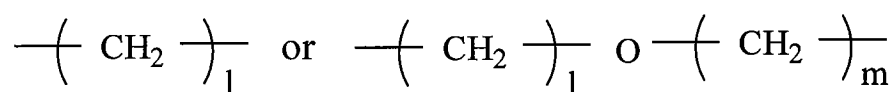
Claim 4 (Previously Amended). A carbon nanotube composition according to claim 1, wherein the carbon nanotube composition additionally contains a basic compound (e).

Claim 5 (Previously Amended). A carbon nanotube composition according to claim 1, wherein the carbon nanotube composition additionally contains a surfactant (f).

Claim 6 (Previously Amended). A carbon nanotube composition according to claim 1, wherein the carbon nanotube composition additionally contains a silane coupling agent (g) represented by the following formula (1):



wherein in the formula (1)  $\text{R}^{242}$ ,  $\text{R}^{243}$  and  $\text{R}^{244}$  respectively and independently represent a group selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 6 carbon atoms, linear or branched alkoxy group having 1 to 6 carbon atoms, amino group, acetyl group, phenyl group and halogen group, X represents the following:



l and m represent values from 0 to 6, and Y represents a group selected from the group consisting of a hydroxyl group, thiol group, amino group, epoxy group and epoxycyclohexyl group.

Claim 7 (Previously Amended). A carbon nanotube composition according to claim 1, wherein the carbon nanotube composition additionally contains a colloidal silica (h).

Claim 8 (Canceled).

Claim 9 (Currently Amended). A carbon nanotube composition according to claim 18, wherein the water soluble conducting polymer has at least one of a sulfonic acid group and a carboxyl group.

Claim 10 (Previously Amended). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is a water soluble conducting polymer that contains 20 to 100% of at least one type of the repeating units selected from the following formulas (2) to (10) relative to the total number of repeating units throughout the entire polymer:

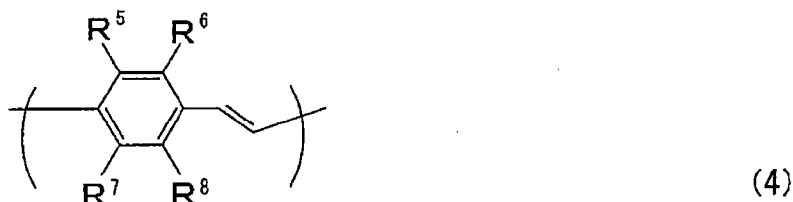


wherein in the formula (2)  $R^1$  and  $R^2$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $\text{R}^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of  $R^1$  and  $R^2$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ;

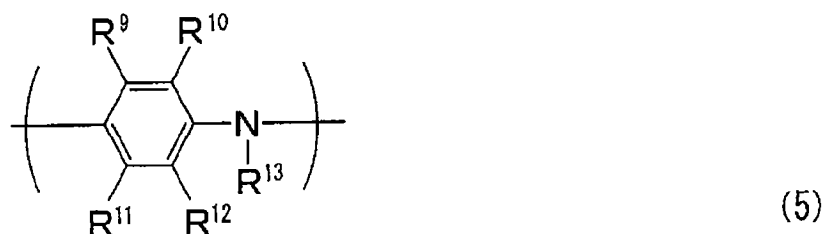


wherein in the formula (3)  $R^3$  and  $R^4$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$

and -CN, where  $R^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of  $R^3$  and  $R^4$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ;

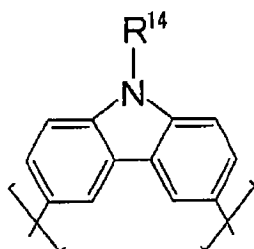


wherein in the formula (4)  $R^5$  to  $R^8$  are respectively and independently selected from the group consisting of  $\text{H}$ ,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $R^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of  $R^5$  to  $R^8$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ;



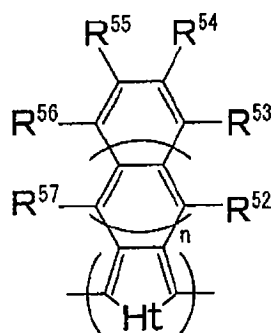
wherein in the formula (5)  $R^9$  to  $R^{13}$  are respectively and independently selected from the group consisting of  $\text{H}$ ,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$

and -CN, where  $R^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of  $R^9$  to  $R^{13}$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ;



(6)

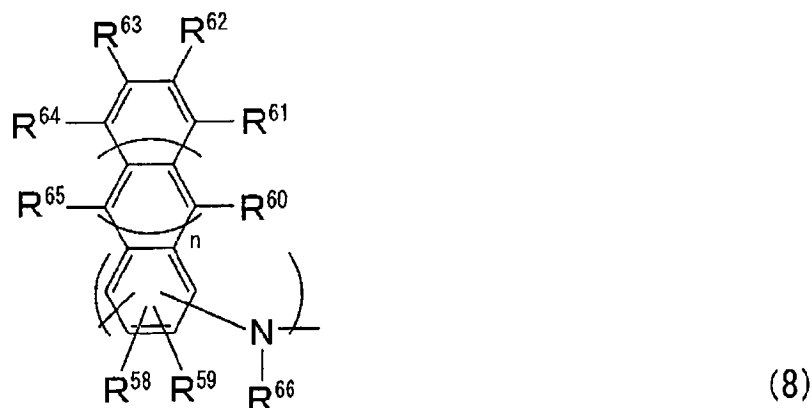
wherein in the formula (6)  $R^{14}$  is selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{42}\text{SO}_3^-$ ,  $-\text{R}^{42}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{42}\text{COOH}$ , where  $R^{42}$  represents an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms;



(7)

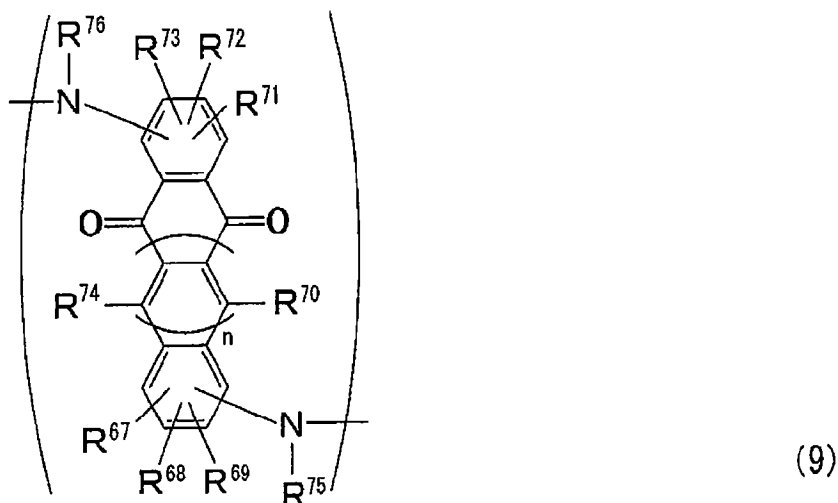
wherein in the formula (7)  $R^{52}$  to  $R^{57}$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $R^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, at least one of  $R^{52}$  to  $R^{57}$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ;

$R^{35}COOH$ , Ht represents a heteroatom group selected from the group consisting of  $NR^{82}$ , S, O, Se and Te, where  $R^{82}$  represents hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, or a substituted or non-substituted aryl group having 1 to 24 carbon atoms, the hydrocarbon chains of  $R^{52}$  to  $R^{57}$  mutually bond at arbitrary locations and may form a bivalent chain that forms at least one cyclic structure of saturated or unsaturated hydrocarbons of a 3 to 7-member ring together with the carbon atoms substituted by the groups, the cyclic bonded chain formed in this manner may contain a carbonyl ether, ester, amide, sulfide, sulfinyl, sulfonyl or imino bond at arbitrary locations, and n represents the number of condensed rings sandwiched between a hetero ring and a benzene ring having substituents  $R^{53}$  to  $R^{56}$ , and is 0 or an integer of 1 to 3;

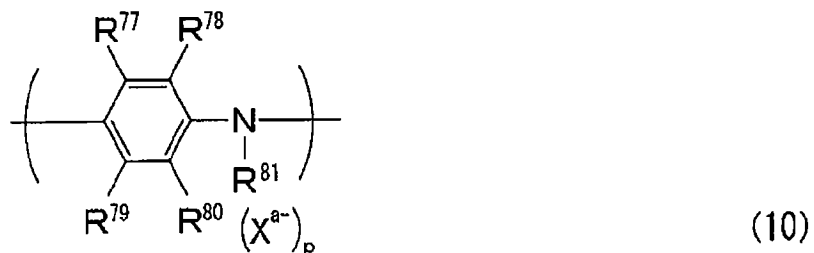


wherein in the formula (8)  $R^{58}$  to  $R^{66}$  are respectively and independently selected from the group consisting of H,  $-SO_3^-$ ,  $-SO_3H$ ,  $-R^{35}SO_3^-$ ,  $-R^{35}SO_3H$ ,  $-OCH_3$ ,  $-CH_3$ ,  $-C_2H_5$ ,  $-F$ ,  $-Cl$ ,  $-Br$ ,  $-I$ ,  $-N(R^{35})_2$ ,  $-NHCOR^{35}$ ,  $-OH$ ,  $-O^-$ ,  $-SR^{35}$ ,  $-OR^{35}$ ,  $-OCOR^{35}$ ,  $-NO_2$ ,  $-COOH$ ,  $-R^{35}COOH$ ,  $-COOR^{35}$ ,  $-COR^{35}$ ,  $-CHO$  and  $-CN$ , where  $R^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, at least one of  $R^{58}$  to  $R^{66}$  is a group selected from the group consisting of  $-SO_3^-$ ,  $-SO_3H$ ,  $-R^{35}SO_3^-$ ,  $-R^{35}SO_3H$ ,  $-COOH$  and  $-R^{35}COOH$ , and n represents the number of condensed rings sandwiched between a benzene ring

having substituents  $R^{58}$  and  $R^{59}$  and a benzene ring having substituents  $R^{61}$  to  $R^{64}$ , and is 0 or an integer of 1 to 3;



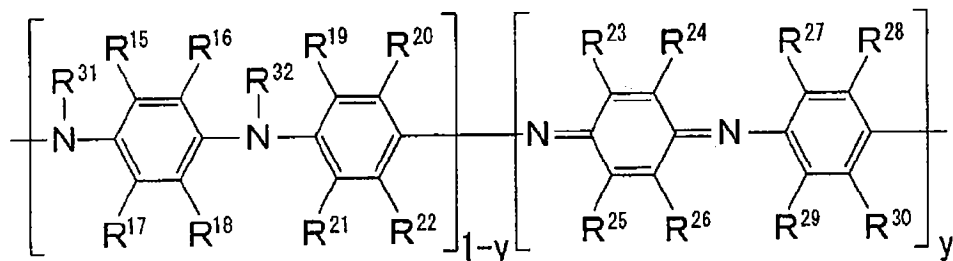
wherein in the formula (9)  $R^{67}$  to  $R^{76}$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $\text{R}^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, at least one of  $R^{67}$  to  $R^{76}$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ , and  $n$  represents the number of condensed rings sandwiched between a benzene ring having substituents  $R^{67}$  to  $R^{69}$  and a benzoquinone ring, and is 0 or an integer of 1 to 3; and,



wherein in the formula (10)  $\text{R}^{77}$  to  $\text{R}^{81}$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $\text{R}^{35}$  represents an alkyl, aryl or aralkyl group or alkylene, arylene having 1 to 24 carbon atoms or an aralkylene group having 1 to 24 carbon atoms, at least one of  $\text{R}^{77}$  to  $\text{R}^{81}$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ ,  $\text{Xa}^-$  is at least one type of anion selected from the group of anions having a valence of 1 to 3 consisting of a chlorine ion, bromine ion, iodine ion, fluorine ion, nitrate ion, sulfate ion, hydrogensulfate ion, phosphate ion, borofluoride ion, perchlorate ion, thiocyanate ion, acetate ion, propionate ion, methane sulfonate ion, p-toluene sulfonate ion, trifluoroacetate ion and trifluoromethane sulfonate ion, a represents the ion valence of X and is an integer of 1 to 3, and p represents the doping ratio and has a value of 0.001 to 1.

Claim 11 (Withdrawn). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is a water soluble conducting polymer that contains 20 to 100% of the repeating unit represented by the following formula (11) relative to the total number of repeating units throughout the entire polymer:

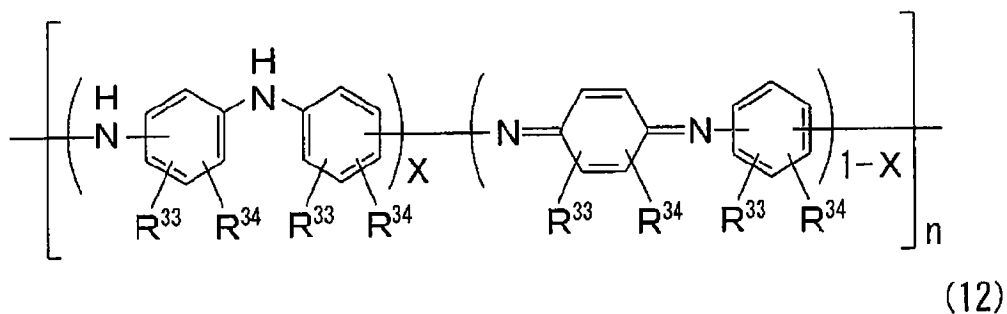




(11)

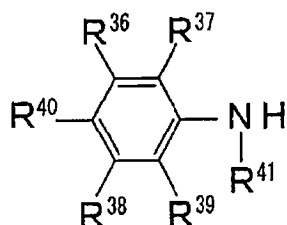
wherein in the formula (11)  $y$  represents an arbitrary number such that  $0 < y < 1$ ,  $\text{R}^{15}$  to  $\text{R}^{32}$  are respectively and independently selected from the group consisting of H,  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$ ,  $-\text{C}_2\text{H}_5$ ,  $-\text{F}$ ,  $-\text{Cl}$ ,  $-\text{Br}$ ,  $-\text{I}$ ,  $-\text{N}(\text{R}^{35})_2$ ,  $-\text{NHCOR}^{35}$ ,  $-\text{OH}$ ,  $-\text{O}^-$ ,  $-\text{SR}^{35}$ ,  $-\text{OR}^{35}$ ,  $-\text{OCOR}^{35}$ ,  $-\text{NO}_2$ ,  $-\text{COOH}$ ,  $-\text{R}^{35}\text{COOH}$ ,  $-\text{COOR}^{35}$ ,  $-\text{COR}^{35}$ ,  $-\text{CHO}$  and  $-\text{CN}$ , where  $\text{R}^{35}$  represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of  $\text{R}^{15}$  to  $\text{R}^{32}$  is a group selected from the group consisting of  $-\text{SO}_3^-$ ,  $-\text{SO}_3\text{H}$ ,  $-\text{R}^{35}\text{SO}_3^-$ ,  $-\text{R}^{35}\text{SO}_3\text{H}$ ,  $-\text{COOH}$  and  $-\text{R}^{35}\text{COOH}$ .

Claim 12 (Withdrawn). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is represented by the following formula (12):



wherein in the formula (12)  $\text{R}^{33}$  represents one group selected from the group consisting of a sulfonic acid group, carboxyl group, their alkaline metal salts, ammonium salts and substituted ammonium salts,  $\text{R}^{34}$  represents one group selected from the group consisting of a methyl group, ethyl group, n-propyl group, iso-propyl group, n-butyl group, iso-butyl group, sec-butyl group, tert-butyl group, dodecyl group, tetracosyl group, methoxy group, ethoxy group, n-propoxy group, iso-butoxy group, sec-butoxy group, tert-butoxy group, heptoxy group, hexoxy group, octoxy group, dodecoxy group, tetracoxy group, fluoro group, chloro group and bromo group, X represents an arbitrary number such that  $0 < X < 1$ , and n represents the degree of polymerization and has a value of 3 or more.

Claim 13 (Withdrawn). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is a water soluble conducting polymer obtained by polymerizing at least one of type of acidic group-substituted aniline represented by the following formula (13), its alkaline metal salt, ammonium salt and substituted ammonium salt, with an oxidizing agent in a solution containing a basic compound:



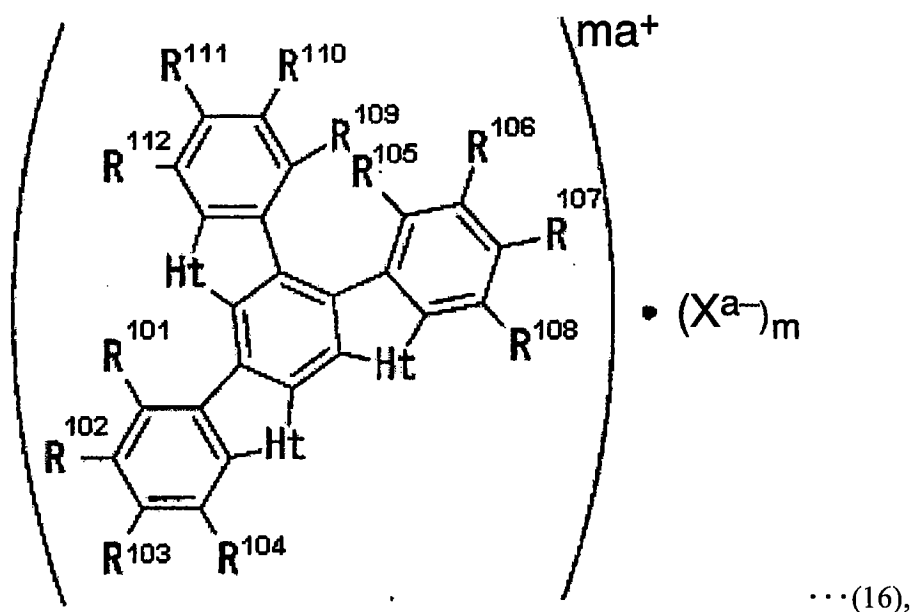
(13)

wherein in the formula (13) R<sup>36</sup> to R<sup>41</sup> are respectively and independently selected from the group consisting of H, -SO<sub>3</sub><sup>-</sup>, -SO<sub>3</sub>H, -R<sup>35</sup>SO<sub>3</sub><sup>-</sup>, -R<sup>35</sup>SO<sub>3</sub>H, -OCH<sub>3</sub>, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub>, -F, -Cl, -Br, -I, -N(R<sup>35</sup>)<sub>2</sub>, -NHCOR<sup>35</sup>, -OH, -O<sup>-</sup>, -SR<sup>35</sup>, -OR<sup>35</sup>, -OCOR<sup>35</sup>, -NO<sub>2</sub>, -COOH, -R<sup>35</sup>COOH, -COOR<sup>35</sup>, -COR<sup>35</sup>, -CHO and -CN, where R<sup>35</sup> represents an alkyl, aryl or aralkyl group having 1 to 24 carbon atoms or an alkylene, arylene or aralkylene group having 1 to 24 carbon atoms, and at least one of R<sup>36</sup> to R<sup>41</sup> is a group selected from the group consisting of -SO<sub>3</sub><sup>-</sup>, -SO<sub>3</sub>H, -R<sup>35</sup>SO<sub>3</sub><sup>-</sup>, -R<sup>35</sup>SO<sub>3</sub>H, -COOH and -R<sup>35</sup>COOH.

Claim 14 (Original). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is a water soluble conducting polymer obtained by polymerizing at least one type of alkoxy group-substituted aminobenzene sulfonic acid, its alkaline metal salt, ammonium salt and substituted ammonium salt, with an oxidizing agent in a solution containing a basic compound.

Claim 15 (Withdrawn). A carbon nanotube composition according to claim 9, wherein the water soluble conducting polymer having at least one of a sulfonic acid group and a carboxyl group is polyethylene dioxythiophene polystyrene sulfate.

Claim 16 (Withdrawn). A carbon nanotube composition according to claim 2, wherein the composition contains a heterocyclic compound trimer (i) that is a heterocyclic compound trimer represented by the following formula (16):

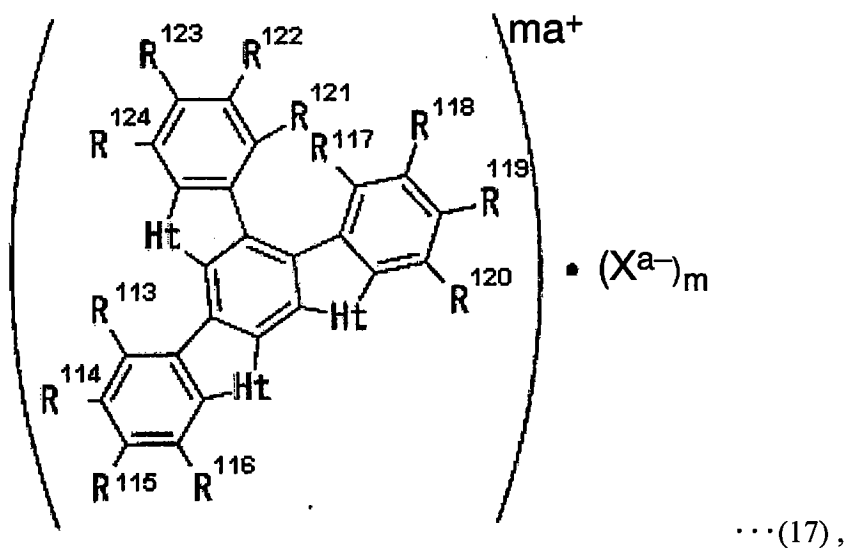


wherein in the formula (16)  $R^{101}$  to  $R^{112}$  are substituents respectively and independently selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, a linear or branched alkoxy group having 1 to 24 carbon atoms, linear or branched acyl group having 2 to 24 carbon atoms, aldehyde group, carboxyl group, linear or branched carboxylic ester group having 2 to 24 carbon atoms, sulfonic acid group, linear or branched sulfonic ester group having 1 to 24 carbon atoms, cyano group, hydroxyl group, nitro group, amino group, amido group, dicyanovinyl group, alkyl (linear or branched alkyl group having 1 to 8 carbon atoms) oxycarbonylcyanovinyl group, nitrophenylcyanovinyl group and halogen group;

Ht represents a heteroatom group selected from the group consisting of  $NR^{154}$ , S, O, Se and Te, and  $R^{154}$  represents a substituent selected from the group consisting of hydrogen and a linear or branched alkyl group having 1 to 24 carbon atoms;

$X^{a-}$  represents at least one type of anion selected from the group consisting of anions having a valence of 1 to 3 consisting of a chlorine ion, bromine ion, iodine ion, fluorine ion, nitrate ion, sulfate ion, hydrogensulfate ion, phosphate ion, borofluoride ion, perchlorate ion, thiocyanate ion, acetate ion, propionate ion, methane sulfonate ion, p-toluene sulfonate ion, trifluoroacetate ion and trifluoromethane sulfonate ion;  $a$  represents the ion valence of  $X$  and is an integer of 1 to 3; and,  $m$  represents the doping ratio and has a value of 0 to 3.0.

Claim 17 (Withdrawn). A carbon nanotube composition according to claim 2, wherein the composition contains a heterocyclic compound trimer (i) that is a heterocyclic compound trimer represented by the following general formula (17):



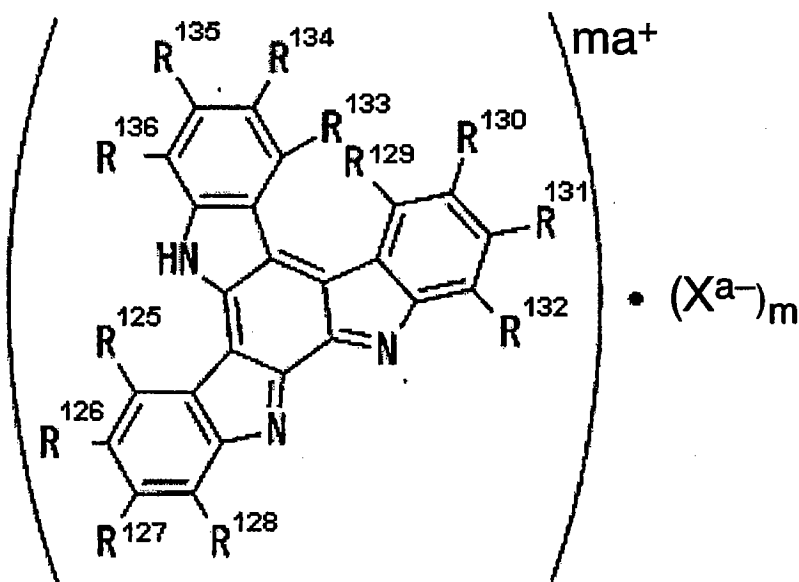
wherein in the formula (17)  $R^{113}$  to  $R^{124}$  represent substituents respectively and independently selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, linear or branched alkoxy group having 1 to 24 carbon atoms, linear or branched acyl group having 2 to 24 carbon atoms, aldehyde group, carboxyl group, linear or branched carboxylic ester group having 2 to 24 carbon atoms, sulfonic acid group, linear or branched sulfonic ester group

having 1 to 24 carbon atoms, cyano group, hydroxyl group, nitro group, amino group, amido group, dicyanovinyl group, alkyl (linear or branched alkyl group having 1 to 8 carbon atoms) oxycarbonylcyanovinyl group, nitrophenylcyanovinyl group and halogen group; at least one of  $R^{113}$  to  $R^{124}$  is a cyano group, nitro group, amide group, halogen group, sulfonic acid group, and carboxyl group;

Ht represents a heteroatom group selected from the group consisting of  $NR^{154}$ , S, O, Se and Te, and  $R^{154}$  represents a substituent selected from the group consisting of hydrogen and a linear or branched alkyl group having 1 to 24 carbon atoms;

$X^{a-}$  represents at least one type of anion selected from the group consisting of anions having a valence of 1 to 3 consisting of a chlorine ion, bromine ion, iodine ion, fluorine ion, nitrate ion, sulfate ion, hydrogen sulfate ion, phosphate ion, borofluoride ion, perchlorate ion, thiocyanate ion, acetate ion, propionate ion, methane sulfonate ion, p-toluene sulfonate ion, trifluoroacetate ion and trifluoromethane sulfonate ion; a represents the ion valence of X and is an integer of 1 to 3; and, m represents the doping ratio and has a value of 0 to 3.0.

Claim 18 (Withdrawn). A carbon nanotube composition according to claim 2, wherein the composition contains a heterocyclic compound trimer (i) that is a heterocyclic compound trimer represented by the following general formula (18):



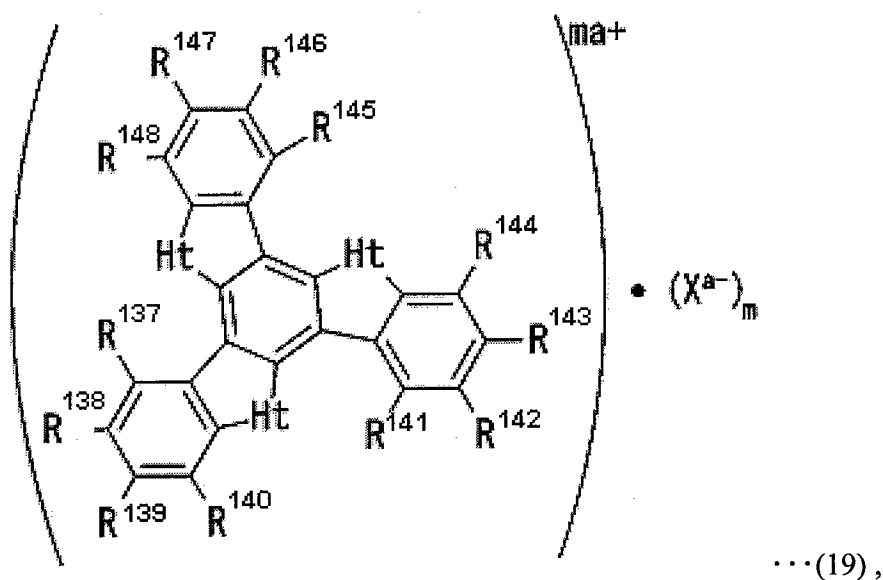
... (18),

wherein in the formula (18) R<sup>125</sup> to R<sup>136</sup> are substituents respectively and independently selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, linear or branched alkoxy group having 1 to 24 carbon atoms, linear or branched acyl group having 2 to 24 carbon atoms, aldehyde group, carboxylic acid group and its alkaline metal salt, ammonium salt and substituted ammonium salt, linear or branched carboxylic ester group having 2 to 24 carbon atoms, sulfonic acid group and its alkaline metal salt, ammonium salt and substituted ammonium salt, linear or branched sulfonic ester group having 1 to 24 carbon atoms, cyano group, hydroxyl group, nitro group, amino group, amido group, dicyanovinyl group, alkyl (linear or branched alkyl group having 1 to 8 carbon atoms)oxycarbonylcyanovinyl group, nitrophenylcyanovinyl group and halogen group;

X<sup>a-</sup> represents at least one type of anion selected from the group consisting of anions having a valence of 1 to 3 consisting of a chlorine ion, bromine ion, iodine ion, fluorine ion, nitrate ion, sulfate ion, hydrogen sulfate ion, phosphate ion, borofluoride ion, perchlorate ion, thiocyanate ion, acetate

ion, propionate ion, methane sulfonate ion, p-toluene sulfonate ion, trifluoroacetate ion and trifluoromethane sulfonate ion; a represents the ion valence of X and is an integer of 1 to 3; and, m represents the doping ratio and has a value of 0 to 3.0.

Claim 19 (Withdrawn). A carbon nanotube composition according to claim 2, wherein the composition contains a heterocyclic compound trimer (i) that is a heterocyclic compound trimer represented by the following general formula (19):



wherein in the formula (19)  $R^{137}$  to  $R^{148}$  are substituents respectively and independently selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, linear or branched alkoxy group having 1 to 24 carbon atoms, linear or branched acyl group having 2 to 24 carbon atoms, aldehyde group, carboxyl group, linear or branched carboxylic ester group having 2 to 24 carbon atoms, sulfonic acid group, linear or branched sulfonic ester group having 1 to 24 carbon atoms, cyano group, hydroxyl group, nitro group, amino group, amido group, dicyanovinyl

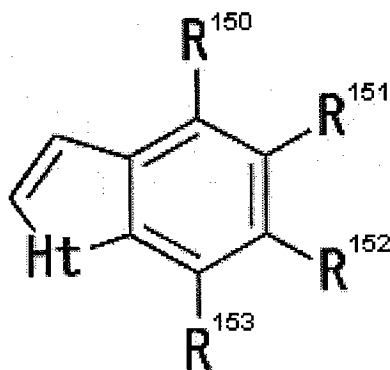


group, alkyl (linear or branched alkyl group having 1 to 8 carbon atoms)oxycarbonylcyanovinyl group, nitrophenylcyanovinyl group and halogen group;

Ht represents a heteroatom group selected from the group consisting of  $\text{NR}^{154}$ , S, O, Se and Te, and  $\text{R}^{154}$  represents a substituent selected from the group consisting of hydrogen and a linear or branched alkyl group having 1 to 24 carbon atoms;

$\text{X}^{a-}$  represents at least one type of anion selected from the group consisting of anions having a valence of 1 to 3 consisting of a chlorine ion, bromine ion, iodine ion, fluorine ion, nitrate ion, sulfate ion, hydrogen sulfate ion, phosphate ion, borofluoride ion, perchlorate ion, thiocyanate ion, acetate ion, propionate ion, methane sulfonate ion, p-toluene sulfonate ion, trifluoroacetate ion and trifluoromethane sulfonate ion; a represents the ion valence of X and is an integer of 1 to 3; and, m represents the doping ratio and has a value of 0 to 3.0.

Claim 20 (Withdrawn). A carbon nanotube composition according to claim 2, wherein the composition contains a heterocyclic compound trimer (i) that is a heterocyclic compound trimer obtained by reacting at least one type of heterocyclic compound represented by the following general formula (20) in a reaction mixture containing at least one type of oxidizing agent and at least one type of solvent:



... (20),

wherein in the formula (20)  $R^{150}$  to  $R^{153}$  are substituents respectively and independently selected from the group consisting of hydrogen, a linear or branched alkyl group having 1 to 24 carbon atoms, linear or branched alkoxy group having 1 to 24 carbon atoms, linear or branched acyl group having 2 to 24 carbon atoms, aldehyde group, carboxyl group, linear or branched carboxylic ester group having 2 to 24 carbon atoms, sulfonic acid group, linear or branched sulfonic ester group having 1 to 24 carbon atoms, cyano group, hydroxyl group, nitro group, amino group, amido group, dicyanovinyl group, alkyl (linear or branched alkyl group having 1 to 8 carbon atoms)oxycarbonylcyanovinyl group, nitrophenylcyanovinyl group and halogen group; and,

Ht represents a heteroatom group selected from the group consisting of  $NR^{154}$ , S, O, Se and Te, and  $R^{154}$  represents a substituent selected from the group consisting of hydrogen and a linear or branched alkyl group having 1 to 24 carbon atoms.

Claim 21 (Withdrawn). A carbon nanotube composition according to claim 2, wherein said carbon nanotube composition includes a the heterocyclic compound trimer (i) having a layered structure.

Claim 22 (Previously Amended). A production method of a carbon nanotube composition comprising: irradiating a carbon nanotube composition according to claim 1 with ultrasonic waves and mixing.

Claim 23 (Previously Amended). A composite comprising a base material, and a coated film composed of the carbon nanotube composition according to claim 1 on at least one surface of the base material.

Claim 24 (Previously Amended). A method of producing a composite comprising: coating the carbon nanotube composition according to claim 1 onto at least one surface of a base material, and forming a coated film by allowing the coated carbon nanotube to stand at room temperature or subjecting it to heat treatment.

Claim 25 (original). A production method of a composite according to claim 24, wherein the heat treatment is carried out within a temperature range of normal temperature to 250°C.